

Table 4–54. Future Potential Risks Under the No Action Alternative

Overall Summary for All Receptors and Pathways (No Action) <sup>a</sup>							
	Added Cancer (Unitless Probability)				Noncarcinogenic Risks (HI)		Notes
	Chemical		Radionuclides				
Receptor	CT	RME	CT	RME	CT	RME	
Resident							Assumes clean, municipal source of domestic water
Adult	$9.50 \times 10^{-4}$	$2.45 \times 10^{-3}$	NA	NA	2.91	16.91	
Child	$3.02 \times 10^{-4}$	$7.70 \times 10^{-4}$			3.51	19.91	
Rafter							Assumes 1 day of exposure per year
Child	$7.51 \times 10^{-9}$	$9.38 \times 10^{-9}$	$1.19 \times 10^{-8}$	$1.48 \times 10^{-8}$	0.01	0.02	Exposure would be from child play in contaminated soil and water
Camper							Assumes 1 day of exposure per year
Adult	$6.53 \times 10^{-8}$	$8.16 \times 10^{-6}$	$3.33 \times 10^{-7}$	$5.94 \times 10^{-7}$	0.16	0.28	Exposure would be from child play in contaminated soil and water
Child	$1.12 \times 10^{-7}$	$2.55 \times 10^{-7}$	$1.82 \times 10^{-7}$	$4.09 \times 10^{-7}$	0.19	0.43	
Outside Worker							Assumes clean, municipal source of domestic water
Adult	$1.36 \times 10^{-7}$	$1.01 \times 10^{-6}$	NA	NA	0.03	0.09	
Dose Assessment							
Resident					CT	RME	
Deterministic dose (with radon) (mrem/yr)					335	434	House built over contaminated soils northeast of the tailings pile
Risk at year 0 (with radon) (unitless probability)					$7.0 \times 10^{-4}$	$1.4 \times 10^{-3}$	
Deterministic dose (without radon) (mrem/yr)					57	88	
Risk at year 0 (without radon) (unitless probability)					$2.1 \times 10^{-4}$	$3.4 \times 10^{-4}$	
Rafter							
Deterministic dose (with radon) (mrem/yr)					$1.8 \times 10^{-3}$	$4.7 \times 10^{-3}$	
Risk at year 0 (with radon) (unitless probability)					$1.2 \times 10^{-9}$	$2.5 \times 10^{-9}$	
Deterministic dose (without radon) (mrem/yr)					$1.7 \times 10^{-3}$	$4.6 \times 10^{-3}$	
Risk at year 0 (without radon) (unitless probability)					$9.8 \times 10^{-10}$	$2.3 \times 10^{-9}$	
Total risks from radionuclides (includes surface water and radon)					$1.2 \times 10^{-9}$	$2.5 \times 10^{-9}$	
Total risks from radionuclides (no radon but includes surface water)					$9.8 \times 10^{-10}$	$2.3 \times 10^{-9}$	
Camper							
Deterministic dose (with radon) (mrem/yr)					0.035	0.081	
Risk at year 0 (with radon) (unitless probability)					$2.6 \times 10^{-8}$	$5.7 \times 10^{-8}$	
Deterministic dose (without radon) (mrem/yr)					0.035	0.081	
Risk at year 0 (without radon) (unitless probability)					$2.6 \times 10^{-8}$	$5.6 \times 10^{-8}$	
Total risks from radionuclides (includes surface water and radon)					$2.6 \times 10^{-8}$	$5.7 \times 10^{-8}$	
Total risks from radionuclides (no radon but includes surface water)					$2.6 \times 10^{-8}$	$5.6 \times 10^{-8}$	
Outside Worker							
Deterministic dose (with radon) (mrem/yr)					67	105.4	
Risk at year 0 (with radon) (unitless probability)					$2.7 \times 10^{-4}$	$1.1 \times 10^{-3}$	
Deterministic dose (without radon) (mrem/yr)					37	28	
Risk at year 0 (without radon) (unitless probability)					$1.9 \times 10^{-4}$	$3.7 \times 10^{-4}$	

<sup>a</sup>See Appendix D for additional details on the assumptions and calculation methods used to estimate the risks.  
Note: HI = Hazard Index, CT = central tendency, RME = reasonable maximum exposure.